

IN THE CLAIMS

1. (currently amended) A tuner apparatus comprising:
a mixer circuit for using first oscillation signals to upwardly frequency-convert terrestrial TV broadcast signals or CATV broadcast signals supplied from a terrestrial TV broadcasting receiver or a CATV broadcasting receiver into signals that fall within an occupied bandwidth of intermediate-frequency signals of satellite TV broadcasting signals supplied from a satellite TV broadcasting receiver, said mixer circuit outputting first intermediate-frequency signals;

a quadrature detector circuit to which said intermediate-frequency signals of said satellite TV broadcasting signals and said first intermediate-frequency signals from said mixer circuit are inputted; and

an oscillator circuit for supplying second oscillation signals of the occupied bandwidth of said intermediate-frequency signals of said satellite TV broadcasting signals to said quadrature detector circuit,

wherein when said tuner apparatus receives satellite TV broadcasting signals, said oscillator circuit supplies said second oscillation signals of the occupied bandwidth and of a predetermined phase to said quadrature detector circuit where said satellite TV broadcasting intermediate-frequency signals supplied thereto are demodulated into baseband signals by using said second oscillation signals, and

wherein when the tuner receives said terrestrial TV broadcast signals or said CATV broadcast signals, said oscillator circuit supplies said second oscillation signals to said quadrature detector circuit where said first intermediate-frequency signals supplied thereto are demodulated into baseband signals by using said second oscillation signals ~~circuit after said first intermediate-frequency signals supplied thereto have~~

~~been frequency-converted into second intermediate-frequency signals by using said first oscillation signals,~~

wherein said mixer frequency-converts only said TV broadcast signals or said CATV broadcast signals and does not frequency-convert said satellite TV broadcasting signals.

2. (previously presented) The tuner apparatus according to claim 1, further comprising an intermediate-frequency amplifier disposed between said satellite TV broadcasting receiver and said quadrature detector circuit.

3. (previously presented) The tuner apparatus according to claim 2, wherein when the tuner receives said satellite TV broadcasting signals, said intermediate-frequency signals obtained by receiving the satellite TV broadcasting signals are supplied through said mixer circuit to said quadrature detector circuit and said mixer circuit operates as said intermediate-frequency amplifier.

4. (currently amended) A tuner apparatus comprising:
a satellite TV broadcasting receiver for receiving satellite TV broadcast signals and outputting satellite TV broadcasting intermediate-frequency signals;

a terrestrial TV broadcasting receiver or CATV broadcasting receiver for receiving terrestrial TV broadcast or CATV broadcast signals;

a mixer circuit for using first oscillation signals to upwardly frequency-convert said terrestrial TV broadcast signals or said CATV broadcast signals into signals within the bandwidth of said satellite TV broadcasting intermediate-frequency signals, said mixer outputting first intermediate-frequency signals;

a quadrature detector circuit to which said intermediate-frequency signals of said satellite TV broadcasting signals and said first intermediate-frequency signals from said mixer are inputted;

a first oscillator circuit for supplying said first oscillation signals to said mixer circuit; and

a second oscillator circuit for supplying second oscillation signals of the occupied bandwidth of said intermediate-frequency signals of said satellite TV broadcasting signals to said quadrature detector circuit,

wherein when said tuner apparatus receives said satellite TV broadcasting signals, said second oscillator circuit supplies said second oscillation signals of the occupied bandwidth and of a predetermined phase to said quadrature detector circuit where said satellite TV broadcasting intermediate-frequency signals supplied thereto are demodulated into baseband signals by using said second oscillation signals; and

wherein when the tuner apparatus receives terrestrial TV broadcast signals or said CATV broadcast signals, said second oscillator circuit supplies said second oscillation signals to said quadrature detector circuit where said first intermediate-frequency signals supplied thereto are demodulated into baseband signals by using said second oscillation signals~~circuit after said first intermediate-frequency signals supplied thereto have been frequency-converted into second intermediate-frequency signals by using said first oscillation signals,~~

wherein said mixer frequency-converts only said TV broadcast signals or said CATV broadcast signals and does not frequency-convert said satellite TV broadcasting signals.

5. (previously presented) The tuner apparatus according to claim 4, further comprising an intermediate-

frequency amplifier disposed between said satellite TV broadcasting receiver and said quadrature detector circuit.

6. (previously presented) The tuner apparatus according to claim 4, further comprising an intermediate-frequency filter disposed between said satellite TV broadcasting receiver and said quadrature detector circuit or between said mixer circuit and said quadrature detector circuit.

7. (previously presented) The tuner apparatus according to claim 4, further comprising an input bandpass filter disposed after said satellite TV broadcasting receiver or after said CATV broadcasting receiver.

8. (previously presented) The tuner apparatus according to claim 4, wherein when said tuner apparatus receives said satellite TV broadcasting signals, said intermediate-frequency signals obtained by receiving said satellite TV broadcasting are supplied through said mixer circuit to said quadrature detector circuit and said mixer circuit operates as said intermediate-frequency amplifier.